



Published in final edited form as:

*Am J Prev Med.* 2013 March ; 44(3): 239–246. doi:10.1016/j.amepre.2012.10.022.

## Fatal Unintentional Injuries in the Home in the U.S., 2000–2008

Karin A. Mack, PhD, Rose A. Rudd, MSPH, Angela D. Mickalide, PhD, MCHES, and Michael F. Ballesteros, PhD

Division of Unintentional Injury Prevention (Mack, Rudd, Ballesteros), National Center for Injury Prevention and Control, CDC, Atlanta, Georgia; Safe Kids Worldwide (Mickalide), Washington, DC

### Abstract

**Background**—From 1992 to 1999, an average of more than 18,000 unintentional home injury deaths occurred in the U.S. annually.

**Purpose**—The objective of this study was to provide current prevalence estimates of fatal unintentional injury in the home.

**Methods**—Data from the 2000–2008 National Vital Statistics System were used in 2011 to calculate average annual rates for unintentional home injury deaths for the U.S. overall, and by mechanism of injury, gender, and age group.

**Results**—From 2000 to 2008, there was an annual average of 30,569 unintentional injury deaths occurring in the home environment in the U.S. (10.3 deaths per 100,000). Poisonings (4.5 per 100,000) and falls (3.5 per 100,000) were the leading causes of home injury deaths. Men/boys had higher rates of home injury death than women/girls (12.7 vs 8.2 per 100,000), and older adults (≥ 80 years) had higher rates than other age groups. Home injury deaths and rates increased significantly from 2000 to 2008.

**Conclusions**—More than 30,000 people die annually in the U.S. from unintentional injuries at home, with the trend rising since the year 2000. The overall rise is due in large part to the dramatic increase in deaths due to poisonings, and to a lesser degree falls at home. Unintentional home injuries are both predictable and preventable. Through a multifaceted approach combining behavioral change, adequate supervision of children, installation and maintenance of safety devices, and adherence to building codes, safety regulations and legislation, home injuries can be reduced.

### Introduction

In 2008 in the U.S., unintentional injury was the leading cause of death for people aged 1–42 years and the 5th-leading cause of death for all ages combined.<sup>1</sup> Although motor vehicle crashes accounted for 31% of all unintentional injury deaths, poisoning and fall-related

---

Address correspondence to: Karin A. Mack, PhD, National Center for Injury Prevention and Control, CDC, 4770 Buford Hwy NE F62, Atlanta GA 30341. kmack@cdc.gov.

The findings and conclusions in this report are those of the authors and do not necessarily represent the views of CDC.

No financial disclosures were reported by the authors of this paper.

deaths, which occur largely in homes, accounted for 45%.<sup>1</sup> In 2005, the most current cost year available, total lifetime medical and work-loss costs of unintentional injury deaths totaled more than \$106 billion.<sup>1</sup>

The burden of home injury death is substantial. As noted in previous work, from 1992 to 1999, an average of 18,048 unintentional home injury deaths occurred annually.<sup>2</sup> Concern for this issue has generated national interest. In 2009, the Surgeon General issued a *Call to Action to Promote Healthy Homes*, noting that a “healthy home is sited, designed, built, renovated, and maintained in ways that support the health of residents.”<sup>3</sup>

Supporting the health of residents includes elimination of safety hazards. A follow-up publication, *Healthy & Safe Homes: Research, Practice, and Policy*, includes a chapter dedicated to making homes safe.<sup>4</sup> Despite the emphasis on making homes safer, there is little knowledge about how home injury deaths and rates have changed in the past 10 years. The objective of the present study was to provide current prevalence estimates of fatal unintentional injury in the home in the U.S. for the period 2000–2008.

## Methods

Data came from the National Vital Statistics System (NVSS). The NVSS mortality data set contains information from death certificates compiled in each state and combined nationally. Data from 2000 to 2008 were used to calculate average annual counts and rates of unintentional home injury deaths by mechanism of injury and by decedent’s age and gender. Unintentional injury deaths were identified from the “underlying cause of death” field of the death record, with the cause of death coded based on the ICD-10. Causes of death included unintentional cut or pierce (W25–W29, W45, W46); drowning (W65–W74); fall (W00–W19); fire or burn (X00–X19); firearm (W32–W34); machinery (W24, W30–W31); natural or environmental (W42–W43, W53–W64, W92–W99, X20–X39, X51–X57); overexertion (X50); poisoning (X40–X49); struck by or against (W20–W22, W50–W52); suffocation (W75–W84); other specified, classifiable (W23, W35–W41, W44, W49, W85–W91, Y85); other specified, not elsewhere classified (X58, Y86); and unspecified (X59).

The home environment as the location of injury was ascertained from the death record and is classified in the system as areas inside the home dwelling, as well as outside areas that are part of the home, including yards. Location of injury was unspecified or blank for 31% of the death certificates. Transportation or motor vehicle crash-related deaths were not included in this analysis, although some proportion of them did occur in the home environment ( $n=31$ ), such as driveways.

Analyses were performed in 2011 with SAS version 9.2. Rates were calculated using U.S. bridged-race resident population estimates, using the 2000 Census counts and the 2001–2008 postcensal estimates from the U.S. Census Bureau (Vintage 2009, [wonder.cdc.gov/wonder/help/populations/Bridged-Race/Estimates2000-09.html](http://wonder.cdc.gov/wonder/help/populations/Bridged-Race/Estimates2000-09.html)). Age-adjusted rates were calculated using the 2000 U.S. standard population using the direct method (i.e., by applying age-specific death rates to the U.S. standard population age distribution). Deaths of people with “not stated” or unknown age were not included in the calculation of age-adjusted rates.

Rates were marked as “unreliable” when the death count was less than 20. Male-to-female rate ratios were calculated for Table 3.

To account for random variation in death rates, CIs were calculated assuming deaths follow a Poisson probability distribution. Under this assumption, the SE of the rate is equal to the rate divided by the square root of the number of deaths. Trends over time were evaluated with weighted linear regression, with the weight equal to the inverse of the variance of the annual estimate.

## Results

### Leading Causes of Home Injury Deaths

From 2000 to 2008, there was an average of 30,569 unintentional injury deaths occurring in the home environment annually in the U.S. The overall age-adjusted annual rate was 10.3 deaths per 100,000 people. Three causes represented 86.3% of the deaths: poisonings, falls, and fire and burns (43.1%, 33.9%, and 9.3% respectively; Table 1). From 2000 to 2008, there was an annual average of 13,175 deaths from poisonings, 10,352 deaths from falls, and 2850 deaths from fire/burns occurring in the home.

Poisonings were the leading cause of unintentional home injury deaths for those aged 15–59 years (Table 2). This includes poisonings from all substances (drugs, both illicit and prescription; alcohol; hydrocarbons; pesticides; and chemicals). For children aged <1 year, suffocation was the leading cause of unintentional home injury death (14.5 deaths per 100,000), and drowning was the leading cause for children aged 1–4 years (1.6 deaths per 100,000). Fire/burns were the leading cause of unintentional home injury death for children aged 5–14 years, and falls were the leading cause for those aged ≥60 years.

Death rates associated with falls increased substantially with age, and the highest cause-specific death rate was for falls among those aged ≥80 years (55.6 per 100,000). Death rates associated with poisonings were highest among those aged 40–49 years (10.2 per 100,000; Table 2). Fire/burn death rates were highest for adults ≥80 years (4.3 per 100,000).

### Gender and Age-Group Comparisons

The average annual unintentional home injury death rate was higher for men/boys (12.7 deaths per 100,000, 95% CI=12.6, 12.8) than for women/girls (8.2 deaths per 100,000, 95% CI=8.2, 8.3; Table 3). This higher rate was apparent across all age groups, with male-to-female rate ratios ranging from 1.3:1 for the group aged <1 year, to 3.2:1 in the group aged 15–19 years. Among both men/boys and women/girls, rates were highest in those aged ≥80 years (men/boys=84.2 per 100,000, 95% CI=83.2, 85.2; women/girls=55.4 per 100,000, 95% CI=54.8, 55.9). Rates were lowest among both men/boys and women/girls in the group aged 10–14 years (men/boys=1.3 per 100,000, 95% CI=1.2, 1.3; women/girls=0.7 per 100,000, 95% CI=0.6, 0.7).

### Trends in Unintentional Home Injury Deaths

The number and rate of unintentional home injury deaths increased from 2000 to 2008 (age-adjusted rate of 7.5 per 100,000 in 2000 to 13.0 per 100,000 in 2008; Figure 1;  $p<0.000$ );

this can primarily be attributed to the increase in poisoning deaths (age-adjusted rate of 2.5 per 100,000 in 2000 to 6.4 per 100,000 in 2008;  $p<0.000$ ). Most of the poisoning deaths result from drug overdoses, notably unintentional overdoses from narcotics, hallucinogens, and drugs classified as “other,” which represented 87% of poisoning deaths in 2008. Deaths from falls also increased during this time (age-adjusted rate of 2.6 per 100,000 in 2000 to 4.2 per 100,000 in 2008;  $p<0.000$ ). Deaths from fires and burns and from unintentional firearm injuries were the only two mechanisms for which there was a decline during this time period ( $p<0.05$ ; although the absolute reduction in number of unintentional firearm injury deaths was relatively small during the time frame [349 in 2000; 320 in 2008]).

### State Rates and Numbers

The age-adjusted rate of unintentional home injury death is displayed in quartiles by state in Figure 2. The average annual number, age-adjusted rate (per 100,000 population) and leading cause of unintentional home injury deaths are shown in Table 4 for each U.S. state. New Mexico had the highest rate of unintentional home injury death during the 2000–2008 study period (20.7 per 100,000 population) and Massachusetts the lowest (5.1 per 100,000 population). The leading cause of unintentional home injury death was either poisoning (30 states and Washington DC) or falls (20 states).

### Discussion

During 2000–2008, more than 30,000 people died annually from unintentional injuries sustained at home, and rates increased every year during this period. The overall rise is due in large part to the significant increase in deaths due to poisonings, and to a lesser degree falls at home. It has been previously documented that the increase in poisoning deaths is due to an increase in deaths from drugs, specifically opioid pain relievers (OPRs).<sup>5</sup> This increase in OPRs has been paralleled by an increase in OPR sales.<sup>6</sup> Increases in fall deaths are being seen specifically among older adults,<sup>1</sup> whose risk for falling and being seriously injured in a fall increases with age.

The results of the present study cannot be directly compared to a previous analysis by Runyan et al.,<sup>2</sup> who reported an annual average of 18,048 unintentional injury deaths between 1992 and 1999 (6.83 deaths per 100,000). There was an ICD coding change in 1999 and different mechanisms of injuries have different comparability ratios across the ICD change (thus the effect of the ICD change is more pronounced with some mechanisms than with others). The mechanisms that are most affected are drowning, non-motor vehicle transportation, and “other specified, classifiable” unintentional injury deaths. Additionally, in the present analysis, bridged-race population estimates were used as denominators, whereas Runyan et al.<sup>2</sup> used civilian non-institutionalized population estimates. Nevertheless, their results and those of the current study suggest that the number of deaths from unintentional injuries in the home has increased annually since 1992.

Although a direct comparison to the Runyan study of absolute numbers or rates would be inappropriate, it can be noted that the overall leading causes of unintentional home injury deaths (falls, poisonings and fire/burn injuries) remained the same (albeit that poisonings are now ranked first). Older adults and infants continued to experience the highest rates of

unintentional home injury deaths, and the leading causes were stable for these groups (<1=suffocation; 70–79 and >80=falls). In the current analysis, rates among adults aged 40–59 years were also notably higher than they were in other age groups.

## Limitations

The data presented here are subject to several limitations. First, death certificate data do not include the circumstances surrounding the death, which would greatly aid in the development of prevention strategies. Second, location was listed for only 69% of the non-transportation-related unintentional injury deaths. The results are underestimates of the true number of unintentional injury deaths at home. It is possible that the location of death was unknown by the individual filling out the death certificate or was simply undocumented.

Although this is a limitation of the data, it represents a slight improvement in the data system (65% could be classified in Runyan et al.<sup>2</sup>). Further, the patterns in unknown location cases tracks with the findings of Runyan and colleagues, as the percentage of injury deaths with unknown locations in the current analysis ranged from 7% for fire/burn injuries to 89.0% for “unspecified” causes of injury (3.7% and 90% respectively in Runyan et al). Other types of injury deaths with a large percentage of unknown location data included inhalations and suffocations (62%); injuries associated with the natural environmental (30%); firearm related (29%); and poisonings (28%), which is also consistent with the earlier analysis.

Third, in some deaths, the manner of death could be misclassified. For example, a poisoning death might be coded as unintentional or undetermined when evidence of suicide intention is not present. It has been noted that the classification of unintentional versus undetermined may reflect a lack of consensus among some state coroners/medical examiners.<sup>7</sup>

The results of the present study emphasize the need to focus attention on prevention of poisonings at home among all adults, falls among older adults, residential fires at all ages, and drowning and suffocation among young children. Although there are numerous strategies for preventing these injuries,<sup>8,9</sup> more research is needed to develop effective interventions that are specific to the home environment. Multiple approaches should be examined and those with the greatest potential effectiveness considered most carefully.<sup>10</sup> Often the most effective will be strategies that modify elements of the home environment, such as installation and maintenance of smoke alarms and controlling access to sources of poisoning, particularly prescription drugs.<sup>6,11</sup>

A number of home safety checklists have been developed to assess home safety hazards.<sup>4,10</sup> However, strategies also need to include methods to change safety practices or behavior.<sup>12</sup> Many home injury prevention strategies are already evidence-based, but are inadequately used. Hence greater efforts are required to increase widespread dissemination and implementation.<sup>13,14</sup> It is important for home injury prevention messages to be embraced and advocated by healthcare providers, teachers, schools, media, local health departments, advocacy groups, business, law enforcement, and policymakers.<sup>10,15</sup>

It should be noted that preventing home injuries comes at a cost, although it is likely costs will be offset by gains. For example, smoke alarms yield an estimated cost-savings of \$770 for a cost of only \$44 per smoke alarm.<sup>16</sup> Programs such as the Housing and Urban Development's (HUD) Healthy Homes Program ([portal.hud.gov/hudportal/HUD?src=/program\\_offices/healthy\\_homes/hhi](http://portal.hud.gov/hudportal/HUD?src=/program_offices/healthy_homes/hhi)) and organizations such as the National Center for Healthy Housing ([www.nchh.org](http://www.nchh.org)) seek to address diseases and injuries in the home with the thought that economies of scale will accrue by focusing on housing-related hazards in a coordinated fashion, rather than addressing a single hazard at a time. In one recent HUD-sponsored program in New York State, partners worked together to provide complete inspections for low-income families with children moving into rental housing. Health inspectors were sent to participating locations to identify hazards, and landlords were provided with training and materials, such as carbon monoxide alarms and smoke detectors.<sup>17</sup>

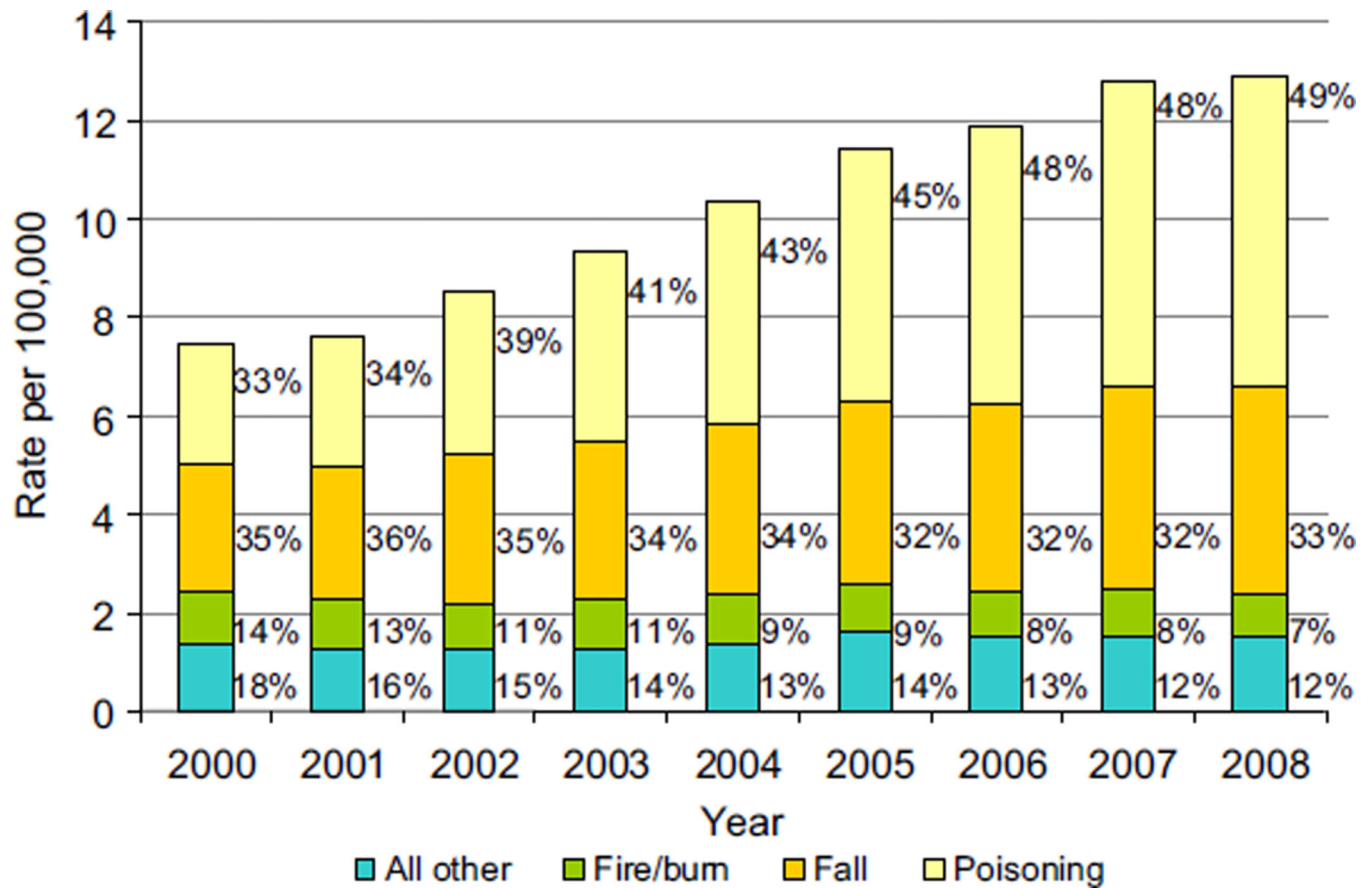
Unintentional home injuries are both predictable and preventable. The costs and consequences of home injuries can be substantial, both to families and society as a whole. Home injuries are related to many factors that span individual, interpersonal, organizational, community, and societal determinants. Through a multifaceted approach combining behavioral change, adequate supervision of children, installation and maintenance of safety devices, and adherence to building codes and safety regulations and legislation, all people can live in safer homes. Home injury prevention should be considered alongside disease prevention as both predictable and preventable through changes in behavior, public policy, enforcement, environmental change, and product safety/engineering.<sup>12,15</sup> Although injury statistics can guide practice and research, a more powerful force is the people behind the statistics whose lives can be spared and disabilities prevented through the application of effective injury prevention strategies at home.

## References

1. CDC. Web-based Injury Statistics Query and Reporting System (WISQARS) [online]. 2011. [www.cdc.gov/ncipc/wisqars](http://www.cdc.gov/ncipc/wisqars).
2. Runyan CW, Casteel C, Perkis D, et al. Unintentional injuries in the home in the U.S. Part I: mortality. *Am J Prev Med*. 2005; 28(1):73–79. [PubMed: 15626560]
3. DHHS. The Surgeon General's call to action to promote healthy homes. Washington: DHHS; 2009.
4. Mickalide, A.; Baldwin, G. Principles of healthy housing: safe. In: Morley, R.; Mickalide, A.; Mack, K., editors. *Healthy and safe homes research, practice, and policy*. Washington DC: APHA Press; 2011. p. 53-72.
5. Warner M, Chen L, Makuc D, Anderson R, Minino A. drug poisoning deaths in the U.S, 1980–2008. *NCHS Data Brief*. 2011; 81:1–8. [PubMed: 22617462]
6. Paulozzi L, Jones C, Mack K, Rudd R. Vital signs: overdoses of prescription opioid pain relievers—U.S., 1999–2008. *MMWR Morb Mortal Wkly Rep*. 2011; 60(43):1487–1492. [PubMed: 22048730]
7. Breiding MJ, Wiersema B. Variability of undetermined manner of death classification in the U.S. *Inj Prev*. 2006; 12(S2):ii49–ii54. [PubMed: 17170172]
8. Stevens, J. A CDC compendium of effective fall interventions: what works for community-dwelling older adults. CDC. , editor. 2010.
9. CDC. Fire safety and prevention tools working together to save lives. [www.cdc.gov/HomeandRecreationalSafety/Fire-Prevention/tools.html](http://www.cdc.gov/HomeandRecreationalSafety/Fire-Prevention/tools.html).
10. Mack K, Liller K. Home injuries: potential for prevention. *Am J Lifestyle Med*. 2010; 4:75–81.

11. DiGuseppi C, Jacobs DE, Phelan KJ, Mickalide AD, Ormandy D. Housing interventions and control of injury-related structural deficiencies: a review of the evidence. *J Public Health Manag Pract.* 2010; 16(5S):S34–S43. [PubMed: 20689373]
12. Gielen, A.; Sleet, D.; DiClemente, R., editors. *Injury and violence prevention: behavioral science theories, methods, and applications.* San Francisco CA: Jossey-Bass; 2006.
13. Doll, L.; Bonzo, S.; Mercy, J.; Sleet, D., editors. *Handbook of injury and violence prevention.* Atlanta GA: Springer; 2007.
14. CDC. *CDC injury research agenda 2009 –2018.* Atlanta GA: CDC; 2009.
15. Liller, K., editor. *Injury prevention for children and adolescents—research, practice and advocacy.* 2nd ed.. Washington DC: APHA Press; 2012.
16. Children’s Safety Network and Pacific Institute for Research and Evaluation. *Injury prevention: what works? A summary of cost-outcome analysis for injury prevention programs.* 2010 [www.childrenssafetynetwork.org/sites/childrenssafetynetwork.org/files/InjuryPreventionWhatWorks.pdf](http://www.childrenssafetynetwork.org/sites/childrenssafetynetwork.org/files/InjuryPreventionWhatWorks.pdf).
17. U.S. Department of Housing and Urban Development. *Leading our nation to healthier homes: the healthy homes strategic plan.* 2009. [www.hud.gov/offices/lead/library/hhi/hh\\_strategic\\_plan.pdf](http://www.hud.gov/offices/lead/library/hhi/hh_strategic_plan.pdf).



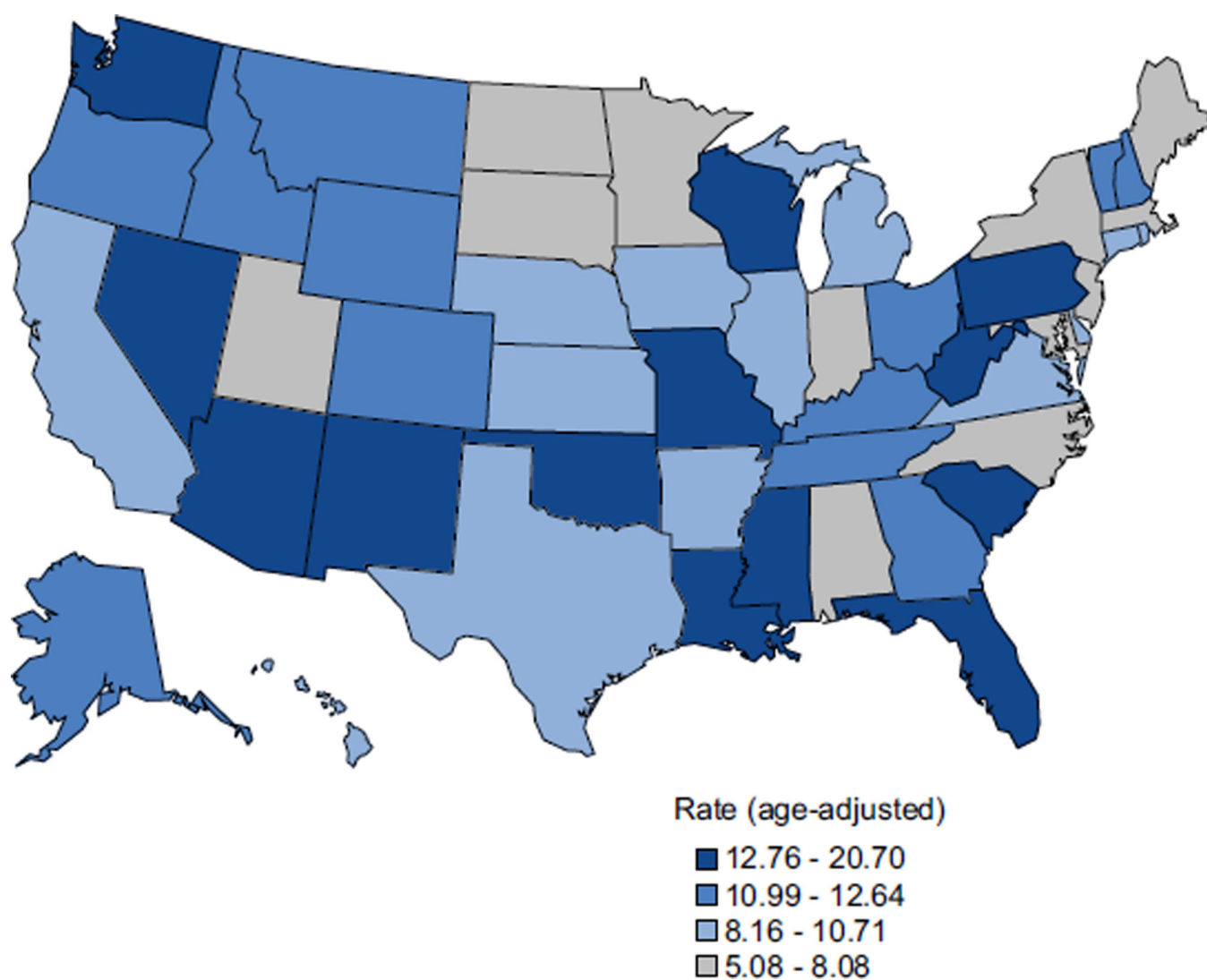


**Figure 1.**

Age-adjusted rate (per 100,000 people) of unintentional home injury deaths by cause and year, U.S., 2000–2008

*Note:* Some bars do not sum to 100% because of rounding.





**Figure 2.**  
Age-adjusted rate (per 100,000 people) of unintentional home injury deaths by state, U.S.,  
2000–2008

**Table 1**

Unintentional injury deaths, by location and cause, U.S., 2000–2008

Cause of death	Average annual number of deaths		Percentage of home injury deaths	Age-adjusted rate
	All locations	In the home		
Poisoning	21,878	13,175	43.1	4.5
Fall	18,640	10,352	33.9	3.5
Fire/burn	3,313	2,850	9.3	1.0
Choking/suffocation	5,792	1,535	5.0	0.5
Drowning/submersion	3,442	824	2.7	0.3
Natural/environmental	1,590	498	1.6	0.2
Firearm	706	332	1.1	0.1
Struck by/against	875	292	1.0	0.1
Other specified	1,419	251	0.8	0.1
Unspecified	6,452	255	0.8	0.1
Machinery	695	124	0.4	0.0
Cut/pierce	100	64	0.2	0.0
Not elsewhere classified <sup>a</sup>	1,040	17	0.1	—
Overexertion <sup>a</sup>	11	2	0.0	—
Total	65,954	30,569	100.0	10.3

Note: Age-adjusted rate is per 100,000 people.

<sup>a</sup>The small number of deaths from these causes makes rate calculation unstable.

**Table 2**

Average annual unintentional home injury deaths, by age group, U.S., 2000–2008

Rank		Age group (years)											
		<1	1–4	5–9	10–14	15–19	20–29	30–39	40–49	50–59	60–69	70–79	80
1	Suffocation	Drowning	Fire/burn	Fire/burn	Poisoning	Poisoning	Poisoning	Poisoning	Poisoning	Fall	Fall	Fall	
	14.5	1.6	0.7	0.4	1.8	5.4	7.1	10.2	4.3	6.8	13.9	55.6	
	593	252	136	76	378	2188	2926	4503	986	2435	2245	5710	
2	Drowning	Fire/burn	Drowning	Suffocation	Fire/burn	Fire/burn	Fire/burn	Fall	Poisoning	Fall	Fire/burn	Fire/burn	
	1.3	1.3	0.2	0.2	0.3	0.5	0.5	1.0	2.0	1.9	2.4	4.3	
	52	211	35	39	65	188	219	429	461	697	383	439	
3	Fire/burn	Suffocation	Suffocation	Poisoning	Firearm	Firearm	Fall	Fire/burn	Fire/burn	Fire/burn	Poisoning	Nat/envIRON	
	0.8	0.6	0.1	0.1	0.2	0.2	0.3	0.8	1.1	1.5	0.8	1.2	
	32	101	27	25	52	77	143	363	385	349	133	119	
4	Fall	Fall	Firearm	Firearm	Suffocation	Suffocation	Suffocation	Suffocation	Suffocation	Suffocation	Suffocation	Suffocation	
	0.4	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.6	1.1	
	15	28	11	21	30	71	94	144	134	94	94	113	
5	Poisoning	Struck by/against	Poisoning	Drowning	Drowning	Fall	Drowning	Drowning	Nat/envIRON	Nat/envIRON	Nat/envIRON	Not specified	
	0.2	0.2	0.05	0.1	0.1	0.2	0.1	0.2	0.2	0.3	0.5	0.9	
	10	24	10	19	21	68	52	86	87	69	81	92	

Note: Values show crude rate per 100,000 people, followed by average annual number of deaths. Rank is the top five leading causes of death.

Nat/enviro, natural/environmental

**Table 3**  
Average annual unintentional home injury deaths, by gender and age group, U.S., 2000–2008

Age group (years)	Men/boys			Women/girls			Total			Rate ratio men/boys: women/girls
	n (%)	Rate (95% CI)	n (%)	n (%)	Rate (95% CI)	n (%)	n (%)	Rate (95% CI)	n (%)	
<1	411 (2.2)	19.6 (19.0, 20.2)	313 (2.6)	15.6 (15.1, 16.2)	725 (2.4)	17.7 (17.2, 18.1)	1.3			
1–4	430 (2.3)	5.2 (5.1, 5.4)	258 (2.1)	3.3 (3.1, 3.4)	688 (2.3)	4.3 (4.2, 4.4)	1.6			
5–9	152 (0.8)	1.5 (1.4, 1.6)	102 (0.8)	1.0 (1.0, 1.1)	254 (0.8)	1.3 (1.2, 1.3)	1.4			
10–14	134 (0.7)	1.3 (1.2, 1.3)	69 (0.6)	0.7 (0.6, 0.7)	203 (0.7)	1.0 (0.9, 1.0)	1.8			
15–19	454 (2.5)	4.2 (4.1, 4.4)	133 (1.1)	1.3 (1.2, 1.4)	588 (1.9)	2.8 (2.7, 2.9)	3.2			
20–29	2,066 (11.3)	10.0 (9.9, 10.1)	663 (5.4)	3.4 (3.3, 3.4)	2,729 (8.9)	6.8 (6.7, 6.8)	3.0			
30–39	2,427 (13.2)	11.6 (11.5, 11.8)	1,166 (9.5)	5.7 (5.5, 5.8)	3,593 (11.8)	8.7 (8.6, 8.8)	2.1			
40–49	3,660 (20.0)	16.7 (16.5, 16.8)	2,118 (17.3)	9.5 (9.3, 9.6)	5,778 (18.9)	13.0 (12.9, 13.1)	1.8			
50–59	2,524 (13.8)	14.4 (14.2, 14.6)	1,463 (11.9)	7.9 (7.8, 8.1)	3,987 (13.0)	11.1 (11.0, 11.2)	1.8			
60–69	1,328 (7.2)	12.4 (12.1, 12.6)	833 (6.8)	6.9 (6.8, 7.1)	2,161 (7.1)	9.5 (9.4, 9.6)	1.8			
70–79	1,746 (9.5)	24.9 (24.5, 25.3)	1,404 (11.5)	15.4 (15.1, 15.6)	3,150 (10.3)	19.5 (19.3, 19.7)	1.6			
80	2,981 (16.3)	84.2 (83.2, 85.2)	3,727 (30.4)	55.4 (54.8, 55.9)	6,708 (21.9)	65.3 (64.8, 65.8)	1.5			
All <sup>a</sup>	18,317 (100.0)	12.7 (12.6, 12.8)	12,252 (100.0)	8.2 (8.2, 8.3)	30,569 (100.0)	10.4 (10.4, 10.5)	1.5			

Note: Rate is crude rate per 100,000 people. *n*=average annual number of deaths.

<sup>a</sup> Age groups do not sum to total as age was missing for a small number of deaths (*n*=56).

**Table 4**

Unintentional home injury deaths, by state, U.S., 2000–2008

State	Average annual number of deaths	Age-adjusted rate (95% CI)	Leading cause (%)
Alabama	277	6.0 (5.8, 6.3)	Poisoning (29.0)
Alaska	77	12.3 (11.3, 13.2)	Poisoning (59.9)
Arizona	828	14.4 (14.1, 14.8)	Poisoning (45.7)
Arkansas	294	10.3 (9.9, 10.7)	Fall (32.7)
California	2751	8.2 (8.1, 8.3)	Poisoning (46.5)
Colorado	547	12.6 (12.3, 13.0)	Poisoning (50.2)
Connecticut	391	10.7 (10.4, 11.1)	Poisoning (52.1)
Delaware	82	9.8 (9.1, 10.5)	Poisoning (46.5)
District of Columbia	63	11.0 (10.1, 11.9)	Poisoning (42.7)
Florida	2593	13.8 (13.6, 14.0)	Poisoning (48.8)
Georgia	1034	12.6 (12.4, 12.9)	Poisoning (42.6)
Hawaii	116	8.6 (8.1, 9.1)	Fall (50.3)
Idaho	164	12.1 (11.5, 12.8)	Fall (41.2)
Illinois	1250	9.9 (9.7, 10.1)	Poisoning (49.3)
Indiana	505	8.1 (7.8, 8.3)	Poisoning (35.2)
Iowa	301	9.0 (8.7, 9.3)	Fall (52.4)
Kansas	303	10.7 (10.3, 11.1)	Fall (39.1)
Kentucky	523	12.6 (12.2, 12.9)	Poisoning (52.3)
Louisiana	569	13.1 (12.7, 13.5)	Poisoning (47.5)
Maine	84	5.9 (5.4, 6.3)	Fall (53.2)
Maryland	318	6.0 (5.8, 6.2)	Fall (61.4)
Massachusetts	353	5.1 (4.9, 5.3)	Fall (51.1)
Michigan	1002	9.9 (9.7, 10.1)	Fall (36.4)
Minnesota	420	8.0 (7.7, 8.2)	Fall (54.6)
Mississippi	438	15.5 (15.0, 15.9)	Poisoning (33.7)
Missouri	835	14.1 (13.8, 14.4)	Poisoning (42.1)
Montana	122	12.4 (11.6, 13.1)	Fall (41.8)
Nebraska	165	8.9 (8.4, 9.3)	Fall (49.8)
Nevada	342	15.2 (14.7, 15.8)	Poisoning (66.7)
New Hampshire	150	11.4 (10.8, 12.0)	Poisoning (45.6)
New Jersey	491	5.5 (5.4, 5.7)	Poisoning (48.4)
New Mexico	381	20.7 (20.0, 21.4)	Poisoning (50.1)
New York	1110	5.5 (5.4, 5.6)	Fall (50.6)
North Carolina	677	8.0 (7.8, 8.2)	Fall (39.9)
North Dakota	48	6.6 (5.9, 7.2)	Fall (54.3)
Ohio	1449	12.3 (12.1, 12.5)	Poisoning (49.5)

State	Average annual number of deaths	Age-adjusted rate (95% CI)	Leading cause (%)
Oklahoma	519	14.8 (14.3, 15.2)	Poisoning (55.1)
Oregon	440	11.6 (11.3, 12.0)	Fall (43.7)
Pennsylvania	1767	13.4 (13.1, 13.6)	Poisoning (51.0)
Rhode Island	102	8.3 (7.7, 8.8)	Fall (71.5)
South Carolina	538	12.8 (12.4, 13.1)	Poisoning (47.4)
South Dakota	60	7.0 (6.4, 7.6)	Fall (48.1)
Tennessee	729	12.2 (11.9, 12.5)	Poisoning (44.9)
Texas	2207	10.6 (10.4, 10.7)	Poisoning (47.8)
Utah	150	7.2 (6.8, 7.6)	Poisoning (43.3)
Vermont	82	12.5 (11.6, 13.4)	Fall (55.1)
Virginia	729	10.0 (9.8, 10.3)	Poisoning (45.8)
Washington	947	15.2 (14.9, 15.6)	Poisoning (50.6)
West Virginia	338	18.0 (17.4, 18.7)	Poisoning (54.6)
Wisconsin	846	14.5 (14.2, 14.8)	Fall (51.9)
Wyoming	57	11.4 (10.4, 12.4)	Poisoning (38.3)

*Note:* Age-adjusted rate is per 100,000 people.